NON-PUBLIC?: N
ACCESSION #: 9104240431

LICENSEE EVEN
REPORT (LER)

FACILITY NAME: Indian Point Unit 3 PAGE: 1 OF 3

DOCKET NUMBER: 05000286

TITLE: Unit Trip Caused By Faulty Check Valve In Main Feed Pump Line
EVENT DATE: 03/22/91 LER #: 91-005-00 REPORT DATE: 04/19/91

OTHER FACILITIES INVOLVED: DOCKET NO: 05000

OPERATING MODE: N POWER LEVEL: 025

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR SECTION:
50.73(a)(2)(iv)

LICENSEE CONTACT FOR THIS LER:
NAME: Vincent R. Coulehan TELEPHONE: (914) 736-8047

COMPONENT FAILURE DESCRIPTION:
CAUSE: X SYSTEM: SJ COMPONENT: V MANUFACTURER: C684
REPORTABLE NPRDS: Y

SUPPLEMENTAL REPORT EXPECTED: No

ABSTRACT:

On March 22, 1991, with the reactor at 25 percent power, a unit trip was initiated as the result of a steam generator low-low level trip. All plant systems functioned properly following the trip. The cause of this event was determined to be cyclic fatigue failure of the locking pin on the 31 main boiler feed pump check valve. The discharge check valves on both main feed pumps were overhauled and retested.

END OF ABSTRACT

DESCRIPTION OF THE EVENT

On March 22, 1991 at 0814 hours, with the reactor at 25 percent power, a

unit trip occurred. The trip occurred as the result of low-low water level in the number 32 steam generator. All plant systems functioned normally following the trip.

INVESTIGATION OF THE EVENT

At the time of the trip, the plant was in the process of power escalation. The number 32 main boiler feed pump (MBFP) was in service and preparations were underway to place 31 main boiler feed pump in service. The reactor operator opened 31 main boiler feed pump discharge valve. Feed flow to all steam generators was reduced due to feedwater from 32 MBFP recirculating back through 31 MBFP's failed check valve. Efforts by control room operators to recover from this could not preclude a steam generator low-low level trip.

Testing conducted after the trip identified that the discharge check valve (Crane Valve Co., Model 20-(37) (X, SJ, V, C684) for 31 main boiler feed pump was not seating properly. Maintenance personnel disassembled the valve and noted the locking pin had broken, causing the valve to fail. A New York Power Authority metallurgist determined that the failure resulted from cyclic fatigue. This valve was completely overhauled. The number 32 main feed pump check valve was opened for preventative inspection and the bushings, hanger pins, and locking pins were replaced.

CAUSE OF THE EVENT

The cause of this event was cyclic fatigue failure of a locking pin, which allowed the hanger pins to dislodge.

CORRECTIVE ACTIONS

Both 31 and 32 main feed pump discharge check valves were rebuilt and retested.

ANALYSIS OF THE EVENT

This event is reportable by 10CFR50.73 (a) (2) (iv). An evaluation has determined that this event has been considered under the guidelines of the plant's FSAR and Technical Specifications. Feedwater isolation is provided by: the main feed water regulator valves closing on the trip signal, the main feed pump discharge motor-operated valves closing on the tripping of the main feed pumps and the individual main feed line check valves. No safety concerns exist as the result of this event.

SECURING FROM THE EVENT

Following repairs and testing, the reactor was brought critical on March 22, 1991 at 1950 hours. There has been one similar, previously reported event described in LER 86-003.

ATTACHMENT 1 TO 9104240431 PAGE 1 OF 1

Indian Point 3
Nuclear Power Plant
P.O. Box 215
Buchanan, New York 10511

914 739.8200

New York Power
Authority

April 19, 1991
IP3-91-025

Docket No. 50-286
License No. DPR-64

Document Control Desk
Mail Station PI-137
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Sir:

The attached Licensee Event Report LER 91-005-00 is hereby submitted in accordance with the requirements of 10CFR50.73. This event is of the type defined in the requirements per 10CFR50.73 (a) (2) (iv).

Very truly yours,

Joseph Russell
Resident Manager
Indian Point Three Nuclear Power Plant

VC/rj
Attachment

cc: Mr. Thomas T. Martin

Regional Administrator
Region 1
U.S. Nuclear Regulatory Commission
475 Allendale Road
King of Prussia, Pennsylvania 19406

INPO Records Center
Suite 1500
1100 Circle 75 Parkway
Atlanta, Georgia 30339

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